

AMENDMENTS TO THE CLAIMS

The following is a complete listing of claims with a status identifier in parenthesis.

LISTING OF CLAIMS

1. (Currently Amended) An apparatus for fabricating a semiconductor device, comprising:

a process chamber;

a susceptor disposed within the process chamber and heating a wafer mounted on the susceptor;

a shower part disposed to face the susceptor within the process chamber;

a first supply pipe for supplying a first source gas to the process chamber; and

a heating device pipe for heating the first source gas, wherein the heating pipe has one end connected with the first supply pipe, the other end connected with the shower part, the heating pipe passing around the susceptor and wherein the first source gas flowing through the heating pipe is heated by heat radiated from the susceptor.

2. (Cancelled).

3. (Currently Amended) The apparatus of claim 21, wherein the ~~heat~~heating pipe has a first heat part coil-shaped to surround a circumference of the susceptor.

4. (Original) The apparatus of claim 3, wherein the first heat part is inside an outer wall of the process chamber.

5. (Original) The apparatus of claim 4, wherein the first heat part is formed ranging from a lower portion of a sidewall of the process chamber to an upper portion of the sidewall of the process

chamber.

6. (Currently Amended) The apparatus of claim 3, wherein the ~~heatheating~~ pipe further has a second heat part disposed in a lower wall of the process chamber and connected with the first supply pipe, and being spiral-shaped to have a radius increasing from a central portion of the lower wall of the process chamber to an outside portion of the lower wall on the same plane.

7. (Currently Amended) The apparatus of claim 36, wherein the ~~heatheating~~ pipe further comprises a third heat part being disposed at an upper portion within the process chamber and connected with the shower part, and being spiral-shaped to have a radius increasing from a central portion of the upper wall of the process chamber to an outside portion of the upper wall on the same plane.

8. (Original) The apparatus of claim 3, wherein the first heat part is disposed between the outer wall of the process chamber and the susceptor.

9. (Currently Amended) The apparatus of claim 36, wherein the ~~heatheating~~ pipe further comprises a third heat part extending from the first heat part and surrounding a circumference of the shower part in a coiled shape.

10. (Currently Amended) The apparatus of claim 3, further comprising a liner disposed between the first heat part of the ~~heatheating~~ pipe and the susceptor.

11. (Original) The apparatus of claim 1, further comprising a second supply pipe for

supplying a second source gas to the shower part.

12. (Original) The apparatus of claim 11, wherein the apparatus is a metal organic chemical vapor deposition (MOCVD) apparatus.

13. (Original) The apparatus of claim 12, wherein the first source gas is a gas flowing into the process chamber at a room temperature, and the second source gas is a metal organic gas inflowing into the process chamber in a heated state.

14. Cancelled.

15. (Original) The apparatus of claim 11, wherein the shower part comprises: a first inlet part which the first source gas flows into; a second inlet part which the second source gas flows into, wherein the second inlet part is separated from the first inlet part.

16. (Original) The apparatus of claim 1, wherein a layer deposited is a ferroelectric layer.

17. (Original) The apparatus of claim 11, wherein the first source gas is an oxygen gas, and a second source gas includes lead (Pb) or compounds thereof, zirconium (Zr) or compounds thereof and titanium (Ti) or compounds thereof.

18-30. Cancelled.

31. (Withdrawn) A method of reducing thermal disturbance during fabrication of

semiconductor device, comprising:

heating a first source gas to be supplied to a process chamber above room temperature; and
heating all other source gases to be supplied to the process chamber above room
temperature.

32. (Withdrawn) A method of exchanging heat during fabrication of a semiconductor
device, comprising:

heating a source gas to be supplied to a process chamber above room temperature using a
heat source internal to the process chamber.

33. (Withdrawn) The method of claim 32, wherein the heat source internal to the process
chamber is a heat source for a susceptor in the process chamber.